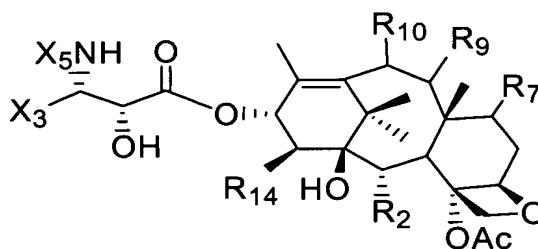


Claims

1. A taxane having the formula:



5 wherein

R<sub>2</sub> is acyloxy;

R<sub>7</sub> is carbamoyloxy;

R<sub>9</sub> is keto, hydroxy, or acyloxy;

R<sub>10</sub> is hydroxy;

10 R<sub>14</sub> is hydrido or hydroxy;

X<sub>3</sub> is substituted or unsubstituted alkyl, alkenyl, alkynyl, phenyl or heterocyclo;

X<sub>5</sub> is -COX<sub>10</sub>, -COOX<sub>10</sub>, or -CONHX<sub>10</sub>;

X<sub>10</sub> is hydrocarbyl, substituted hydrocarbyl, or heterocyclo; and

Ac is acetyl.

2. The taxane of claim 1 wherein R<sub>7</sub> is R<sub>7a</sub>R<sub>7b</sub>NCOO- and R<sub>7a</sub> and R<sub>7b</sub> are independently hydrogen, hydrocarbyl, substituted hydrocarbyl, or heterocyclo.

3. The taxane of claim 2 wherein X<sub>3</sub> is 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl, C<sub>1</sub> - C<sub>8</sub> alkyl, C<sub>2</sub> - C<sub>8</sub> alkenyl, or C<sub>2</sub> - C<sub>8</sub> alkynyl.

4. The taxane of claim 2 wherein X<sub>5</sub> is -COX<sub>10</sub> and X<sub>10</sub> is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl, C<sub>1</sub> - C<sub>8</sub> alkyl, C<sub>2</sub> - C<sub>8</sub> alkenyl, or C<sub>2</sub> - C<sub>8</sub> alkynyl, or X<sub>5</sub> is -COOX<sub>10</sub> and X<sub>10</sub> is substituted or unsubstituted C<sub>1</sub> - C<sub>8</sub> alkyl, C<sub>2</sub> - C<sub>8</sub> alkenyl, or C<sub>2</sub> - C<sub>8</sub> alkynyl.

5. The taxane of claim 2 wherein X<sub>5</sub> is -COX<sub>10</sub> wherein X<sub>10</sub> is phenyl, or X<sub>5</sub> is -COOX<sub>10</sub> wherein X<sub>10</sub> is t-butyl.

6. The taxane of claim 2 wherein R<sub>14</sub> is hydrido.

7. The taxane of claim 6 wherein  $X_3$  is 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.

8. The taxane of claim 6 wherein  $X_5$  is  $-COX_{10}$  and  $X_{10}$  is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl or  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is substituted or unsubstituted  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.

9. The taxane of claim 6 wherein  $X_5$  is  $-COX_{10}$  and  $X_{10}$  is phenyl, or  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is t-butyl.

10. The taxane of claim 2 wherein  $R_2$  is benzoyloxy.

11. The taxane of claim 10 wherein  $X_3$  is 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.

12. The taxane of claim 10 wherein  $X_5$  is  $-COX_{10}$  and  $X_{10}$  is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl or  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is substituted or unsubstituted  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.

13. The taxane of claim 10 wherein  $X_5$  is  $-COX_{10}$  and  $X_{10}$  is phenyl, or  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is t-butyl.

14. The taxane of claim 2 wherein  $R_{14}$  is hydrido and  $R_9$  is keto.

15. The taxane of claim 14 wherein  $X_3$  is 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.

16. The taxane of claim 14 wherein  $X_5$  is  $-COX_{10}$  and  $X_{10}$  is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl or  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is substituted or unsubstituted  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.

17. The taxane of claim 14 wherein  $X_5$  is  $-COX_{10}$  and  $X_{10}$  is phenyl, or  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is t-butyl.

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18. The taxane of claim 2 wherein  $R_2$  is benzoyloxy and  $R_9$  is keto.
19. The taxane of claim 18 wherein  $X_3$  is 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.
20. The taxane of claim 18 wherein  $X_5$  is  $-COX_{10}$  and  $X_{10}$  is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl or  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is substituted or unsubstituted  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.
21. The taxane of claim 18 wherein  $X_5$  is  $-COX_{10}$  and  $X_{10}$  is phenyl, or  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is t-butyl.
22. The taxane of claim 2 wherein  $R_{14}$  is hydrido and  $R_2$  is benzoyloxy.
23. The taxane of claim 22 wherein  $X_3$  is 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.
24. The taxane of claim 22 wherein  $X_5$  is  $-COX_{10}$  and  $X_{10}$  is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl or  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is substituted or unsubstituted  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.
25. The taxane of claim 22 wherein  $X_5$  is  $-COX_{10}$  and  $X_{10}$  is phenyl, or  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is t-butyl.
26. The taxane of claim 2 wherein  $R_{14}$  is hydrido,  $R_9$  is keto, and  $R_2$  is benzoyloxy.
27. The taxane of claim 26 wherein  $X_3$  is 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.

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28. The taxane of claim 26 wherein  $X_5$  is  $-COX_{10}$  and  $X_{10}$  is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl or  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is substituted or unsubstituted  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.

29. The taxane of claim 26 wherein  $X_5$  is  $-COX_{10}$  and  $X_{10}$  is phenyl, or  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is t-butyl.

30. The taxane of claim 1 wherein  $R_7$  is  $R_{7a}R_{7b}NCOO-$ , one of  $R_{7a}$  and  $R_{7b}$  is hydrogen and the other is hydrocarbyl, substituted hydrocarbyl, or heterocyclo.

31. The taxane of claim 30 wherein  $X_3$  is 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.

32. The taxane of claim 30 wherein  $X_5$  is  $-COX_{10}$  and  $X_{10}$  is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl, or  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is substituted or unsubstituted  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.

33. The taxane of claim 30 wherein  $X_5$  is  $-COX_{10}$  and  $X_{10}$  is phenyl, or  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is t-butyl.

34. The taxane of claim 30 wherein  $R_{14}$  is hydrido.

35. The taxane of claim 34 wherein  $X_3$  is 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.

36. The taxane of claim 34 wherein  $X_5$  is  $-COX_{10}$  and  $X_{10}$  is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl or  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is substituted or unsubstituted  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.

37. The taxane of claim 34 wherein  $X_5$  is  $-COX_{10}$  and  $X_{10}$  is phenyl, or  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is t-butyl.

38. The taxane of claim 30 wherein  $R_2$  is benzoyloxy.

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39. The taxane of claim 38 wherein  $X_3$  is 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.

40. The taxane of claim 38 wherein  $X_5$  is  $-COX_{10}$  and  $X_{10}$  is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl or  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is substituted or unsubstituted  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.

41. The taxane of claim 38 wherein  $X_5$  is  $-COX_{10}$  and  $X_{10}$  is phenyl, or  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is t-butyl.

42. The taxane of claim 30 wherein  $R_{14}$  is hydrido and  $R_9$  is keto.

43. The taxane of claim 42 wherein  $X_3$  is 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.

44. The taxane of claim 42 wherein  $X_5$  is  $-COX_{10}$  and  $X_{10}$  is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl or  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is substituted or unsubstituted  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.

45. The taxane of claim 42 wherein  $X_5$  is  $-COX_{10}$  and  $X_{10}$  is phenyl, or  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is t-butyl.

46. The taxane of claim 30 wherein  $R_2$  is benzoyloxy and  $R_9$  is keto.

47. The taxane of claim 46 wherein  $X_3$  is 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.

48. The taxane of claim 46 wherein  $X_5$  is  $-COX_{10}$  and  $X_{10}$  is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl or  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is substituted or unsubstituted  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.

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49. The taxane of claim 46 wherein  $X_5$  is  $-\text{COX}_{10}$  and  $X_{10}$  is phenyl, or  $X_5$  is  $-\text{COOX}_{10}$  and  $X_{10}$  is t-butyl.

50. The taxane of claim 30 wherein  $R_{14}$  is hydrido and  $R_2$  is benzoyloxy.

51. The taxane of claim 50 wherein  $X_3$  is 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.

52. The taxane of claim 50 wherein  $X_5$  is  $-\text{COX}_{10}$  and  $X_{10}$  is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl or  $X_5$  is  $-\text{COOX}_{10}$  and  $X_{10}$  is substituted or unsubstituted  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.

53. The taxane of claim 50 wherein  $X_5$  is  $-\text{COX}_{10}$  and  $X_{10}$  is phenyl, or  $X_5$  is  $-\text{COOX}_{10}$  and  $X_{10}$  is t-butyl.

54. The taxane of claim 30 wherein  $R_{14}$  is hydrido,  $R_9$  is keto, and  $R_2$  is benzoyloxy.

55. The taxane of claim 54 wherein  $X_3$  is 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.

56. The taxane of claim 54 wherein  $X_5$  is  $-\text{COX}_{10}$  and  $X_{10}$  is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl or  $X_5$  is  $-\text{COOX}_{10}$  and  $X_{10}$  is substituted or unsubstituted  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.

57. The taxane of claim 54 wherein  $X_5$  is  $-\text{COX}_{10}$  and  $X_{10}$  is phenyl, or  $X_5$  is  $-\text{COOX}_{10}$  and  $X_{10}$  is t-butyl.

58. The taxane of claim 1 wherein  $R_7$  is  $R_{7a}R_{7b}\text{NCOO}-$ , one of  $R_{7a}$  and  $R_{7b}$  is hydrogen and the other is substituted or unsubstituted  $C_1 - C_8$  alkyl, phenyl, furyl, thienyl or pyridyl.

59. The taxane of claim 58 wherein  $X_3$  is 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.

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60. The taxane of claim 58 wherein  $X_5$  is  $-\text{COX}_{10}$  and  $X_{10}$  is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl, or  $X_5$  is  $-\text{COOX}_{10}$  and  $X_{10}$  is substituted or unsubstituted  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.

61. The taxane of claim 58 wherein  $X_5$  is  $-\text{COX}_{10}$  and  $X_{10}$  is phenyl, or  $X_5$  is  $-\text{COOX}_{10}$  and  $X_{10}$  is t-butyl.

62. The taxane of claim 58 wherein  $R_{14}$  is hydrido.

63. The taxane of claim 62 wherein  $X_3$  is 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.

64. The taxane of claim 62 wherein  $X_5$  is  $-\text{COX}_{10}$  and  $X_{10}$  is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl or  $X_5$  is  $-\text{COOX}_{10}$  and  $X_{10}$  is substituted or unsubstituted  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.

65. The taxane of claim 62 wherein  $X_5$  is  $-\text{COX}_{10}$  and  $X_{10}$  is phenyl, or  $X_5$  is  $-\text{COOX}_{10}$  and  $X_{10}$  is t-butyl.

66. The taxane of claim 58 wherein  $R_2$  is benzoyloxy.

67. The taxane of claim 66 wherein  $X_3$  is 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.

68. The taxane of claim 66 wherein  $X_5$  is  $-\text{COX}_{10}$  and  $X_{10}$  is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl or  $X_5$  is  $-\text{COOX}_{10}$  and  $X_{10}$  is substituted or unsubstituted  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.

69. The taxane of claim 66 wherein  $X_5$  is  $-\text{COX}_{10}$  and  $X_{10}$  is phenyl, or  $X_5$  is  $-\text{COOX}_{10}$  and  $X_{10}$  is t-butyl.

70. The taxane of claim 58 wherein  $R_{14}$  is hydrido and  $R_9$  is keto.

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71. The taxane of claim 70 wherein  $X_3$  is 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.

72. The taxane of claim 70 wherein  $X_5$  is  $-COX_{10}$  and  $X_{10}$  is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl or  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is substituted or unsubstituted  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.

73. The taxane of claim 70 wherein  $X_5$  is  $-COX_{10}$  and  $X_{10}$  is phenyl, or  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is t-butyl.

74. The taxane of claim 58 wherein  $R_2$  is benzoyloxy and  $R_9$  is keto.

75. The taxane of claim 74 wherein  $X_3$  is 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.

76. The taxane of claim 74 wherein  $X_5$  is  $-COX_{10}$  and  $X_{10}$  is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl or  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is substituted or unsubstituted  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.

77. The taxane of claim 74 wherein  $X_5$  is  $-COX_{10}$  and  $X_{10}$  is phenyl, or  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is t-butyl.

78. The taxane of claim 58 wherein  $R_{14}$  is hydrido and  $R_2$  is benzoyloxy.

79. The taxane of claim 78 wherein  $X_3$  is 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.

80. The taxane of claim 78 wherein  $X_5$  is  $-COX_{10}$  and  $X_{10}$  is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl or  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is substituted or unsubstituted  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.

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81. The taxane of claim 78 wherein  $X_5$  is  $-\text{COX}_{10}$  and  $X_{10}$  is phenyl, or  $X_5$  is  $-\text{COOX}_{10}$  and  $X_{10}$  is t-butyl.

82. The taxane of claim 58 wherein  $R_{14}$  is hydrido,  $R_9$  is keto, and  $R_2$  is benzoyloxy.

83. The taxane of claim 82 wherein  $X_3$  is 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.

84. The taxane of claim 82 wherein  $X_5$  is  $-\text{COX}_{10}$  and  $X_{10}$  is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl or  $X_5$  is  $-\text{COOX}_{10}$  and  $X_{10}$  is substituted or unsubstituted  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.

85. The taxane of claim 82 wherein  $X_5$  is  $-\text{COX}_{10}$  and  $X_{10}$  is phenyl, or  $X_5$  is  $-\text{COOX}_{10}$  and  $X_{10}$  is t-butyl.

86. The taxane of claim 82 wherein  $X_5$  is  $-\text{COOX}_{10}$  and  $X_{10}$  is t-butyl.

87. The taxane of claim 86 wherein  $X_3$  is 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.

88. The taxane of claim 86 wherein  $X_3$  is furyl or thienyl.

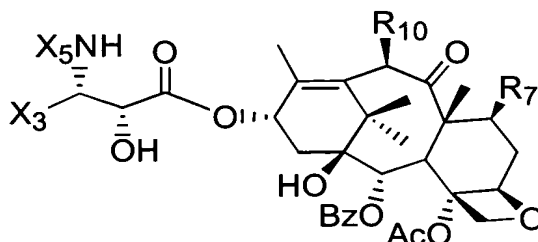
89. The taxane of claim 86 wherein  $X_3$  is 2-furyl.

90. The taxane of claim 86 wherein  $X_3$  is 2-thienyl.

91. The taxane of claim 86 wherein  $X_3$  is cycloalkyl.

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92. A taxane having the formula:



R<sub>7</sub> is carbamoyloxy;

R<sub>10</sub> is hydroxy;

X<sub>3</sub> is substituted or unsubstituted alkyl, alkenyl, alkynyl, or heterocyclo;

X<sub>5</sub> is -COX<sub>10</sub>, -COOX<sub>10</sub>, or -CONHX<sub>10</sub>;

X<sub>10</sub> is hydrocarbyl, substituted hydrocarbyl, or heterocyclo,

Ac is acetyl, and

Bz is benzoyl.

93. The taxane of claim 92 wherein X<sub>3</sub> is 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl, C<sub>1</sub> - C<sub>8</sub> alkyl, C<sub>2</sub> - C<sub>8</sub> alkenyl, or C<sub>2</sub> - C<sub>8</sub> alkynyl.

94. The taxane of claim 93 wherein X<sub>5</sub> is -COX<sub>10</sub> and X<sub>10</sub> is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl, C<sub>1</sub> - C<sub>8</sub> alkyl, C<sub>2</sub> - C<sub>8</sub> alkenyl, or C<sub>2</sub> - C<sub>8</sub> alkynyl, or X<sub>5</sub> is -COOX<sub>10</sub> and X<sub>10</sub> is substituted or unsubstituted C<sub>1</sub> - C<sub>8</sub> alkyl, C<sub>2</sub> - C<sub>8</sub> alkenyl, or C<sub>2</sub> - C<sub>8</sub> alkynyl.

95. The taxane of claim 93 wherein X<sub>5</sub> is -COX<sub>10</sub> and X<sub>10</sub> is phenyl, or X<sub>5</sub> is -COOX<sub>10</sub> and X<sub>10</sub> is t-butyl.

96. The taxane of claim 92 wherein X<sub>3</sub> is furyl or thienyl.

97. The taxane of claim 96 wherein X<sub>5</sub> is -COX<sub>10</sub> and X<sub>10</sub> is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl, C<sub>1</sub> - C<sub>8</sub> alkyl, C<sub>2</sub> - C<sub>8</sub> alkenyl, or C<sub>2</sub> - C<sub>8</sub> alkynyl, or X<sub>5</sub> is -COOX<sub>10</sub> and X<sub>10</sub> is substituted or unsubstituted C<sub>1</sub> - C<sub>8</sub> alkyl, C<sub>2</sub> - C<sub>8</sub> alkenyl, or C<sub>2</sub> - C<sub>8</sub> alkynyl.

98. The taxane of claim 96 wherein  $X_5$  is  $-\text{COX}_{10}$  and  $X_{10}$  is phenyl, or  $X_5$  is  $-\text{COOX}_{10}$  and  $X_{10}$  is t-butyl.

99. The taxane of claim 93 wherein  $X_3$  is cycloalkyl.

100. The taxane of claim 99 wherein  $X_5$  is  $-\text{COX}_{10}$  and  $X_{10}$  is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl, or  $X_5$  is  $-\text{COOX}_{10}$  and  $X_{10}$  is substituted or unsubstituted  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.

101. The taxane of claim 99 wherein  $X_5$  is  $-\text{COX}_{10}$  and  $X_{10}$  is phenyl, or  $X_5$  is  $-\text{COOX}_{10}$  and  $X_{10}$  is t-butyl.

102. The taxane of claim 93 wherein  $X_3$  is isobutenyl.

103. The taxane of claim 102 wherein  $X_5$  is  $-\text{COX}_{10}$  and  $X_{10}$  is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl, or  $X_5$  is  $-\text{COOX}_{10}$  and  $X_{10}$  is substituted or unsubstituted  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.

104. The taxane of claim 102 wherein  $X_5$  is  $-\text{COX}_{10}$  and  $X_{10}$  is phenyl, or  $X_5$  is  $-\text{COOX}_{10}$  and  $X_{10}$  is t-butyl.

105. The taxane of claim 92 wherein  $R_7$  is  $R_{7a}R_{7b}\text{NCOO}-$ , one of  $R_{7a}$  and  $R_{7b}$  is hydrogen and the other is  $C_1 - C_8$  alkyl, phenyl or heterocyclo.

106. The taxane of claim 105 wherein  $X_3$  is 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.

107. The taxane of claim 106 wherein  $X_5$  is  $-\text{COX}_{10}$  and  $X_{10}$  is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl, or  $X_5$  is  $-\text{COOX}_{10}$  and  $X_{10}$  is substituted or unsubstituted  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.

108. The taxane of claim 106 wherein  $X_5$  is  $-\text{COX}_{10}$  and  $X_{10}$  is phenyl, or  $X_5$  is  $-\text{COOX}_{10}$  and  $X_{10}$  is t-butyl.

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109. The taxane of claim 105 wherein  $X_3$  is furyl or thienyl.

110. The taxane of claim 109 wherein  $X_5$  is  $-\text{COX}_{10}$  and  $X_{10}$  is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $\text{C}_1 - \text{C}_8$  alkyl,  $\text{C}_2 - \text{C}_8$  alkenyl, or  $\text{C}_2 - \text{C}_8$  alkynyl, or  $X_5$  is  $-\text{COOX}_{10}$  and  $X_{10}$  is substituted or unsubstituted  $\text{C}_1 - \text{C}_8$  alkyl,  $\text{C}_2 - \text{C}_8$  alkenyl, or  $\text{C}_2 - \text{C}_8$  alkynyl.

111. The taxane of claim 109 wherein  $X_5$  is  $-\text{COX}_{10}$  and  $X_{10}$  is phenyl, or  $X_5$  is  $-\text{COOX}_{10}$  and  $X_{10}$  is t-butyl.

112. The taxane of claim 105 wherein  $X_3$  is cycloalkyl.

113. The taxane of claim 112 wherein  $X_5$  is  $-\text{COX}_{10}$  and  $X_{10}$  is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $\text{C}_1 - \text{C}_8$  alkyl,  $\text{C}_2 - \text{C}_8$  alkenyl, or  $\text{C}_2 - \text{C}_8$  alkynyl, or  $X_5$  is  $-\text{COOX}_{10}$  and  $X_{10}$  is substituted or unsubstituted  $\text{C}_1 - \text{C}_8$  alkyl,  $\text{C}_2 - \text{C}_8$  alkenyl, or  $\text{C}_2 - \text{C}_8$  alkynyl.

114. The taxane of claim 112 wherein  $X_5$  is  $-\text{COX}_{10}$  and  $X_{10}$  is phenyl, or  $X_5$  is  $-\text{COOX}_{10}$  and  $X_{10}$  is t-butyl.

115. The taxane of claim 105 wherein  $X_3$  is isobutenyl.

116. The taxane of claim 115 wherein  $X_5$  is  $-\text{COX}_{10}$  and  $X_{10}$  is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $\text{C}_1 - \text{C}_8$  alkyl,  $\text{C}_2 - \text{C}_8$  alkenyl, or  $\text{C}_2 - \text{C}_8$  alkynyl, or  $X_5$  is  $-\text{COOX}_{10}$  and  $X_{10}$  is substituted or unsubstituted  $\text{C}_1 - \text{C}_8$  alkyl,  $\text{C}_2 - \text{C}_8$  alkenyl, or  $\text{C}_2 - \text{C}_8$  alkynyl.

117. The taxane of claim 115 wherein  $X_5$  is  $-\text{COX}_{10}$  and  $X_{10}$  is phenyl, or  $X_5$  is  $-\text{COOX}_{10}$  and  $X_{10}$  is t-butyl.

118. The taxane of claim 92 wherein  $X_3$  is furyl or thienyl,  $R_7$  is  $R_{7a}R_{7b}\text{NCOO}-$ , one of  $R_{7a}$  and  $R_{7b}$  is hydrogen, the other of  $R_{7a}$  and  $R_{7b}$  is  $\text{C}_1 - \text{C}_8$  alkyl, phenyl, or heterocyclo, and  $X_5$  is  $-\text{COX}_{10}$  wherein  $X_{10}$  is phenyl, or  $X_5$  is  $-\text{COOX}_{10}$  wherein  $X_{10}$  is t-butyl.

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119. The taxane of claim 92 wherein  $X_3$  is substituted or unsubstituted furyl,  $R_7$  is  $R_{7a}R_{7b}NCOO-$ , one of  $R_{7a}$  and  $R_{7b}$  is hydrogen, the other of  $R_{7a}$  and  $R_{7b}$  is methyl, ethyl, or straight, branched or cyclic propyl, and  $X_5$  is  $-COX_{10}$  wherein  $X_{10}$  is phenyl, or  $X_5$  is  $-COOX_{10}$  wherein  $X_{10}$  is t-butyl.

120. The taxane of claim 92 wherein  $X_3$  is substituted or unsubstituted furyl,  $R_7$  is  $R_{7a}R_{7b}NCOO-$ , one of  $R_{7a}$  and  $R_{7b}$  is hydrogen, the other of  $R_{7a}$  and  $R_{7b}$  is substituted or unsubstituted phenyl or heterocyclo, and  $X_5$  is  $-COX_{10}$  wherein  $X_{10}$  is phenyl, or  $X_5$  is  $-COOX_{10}$  wherein  $X_{10}$  is t-butyl.

121. The taxane of claim 92 wherein  $X_3$  is substituted or unsubstituted thienyl, one of  $R_{7a}$  and  $R_{7b}$  is hydrogen, the other of  $R_{7a}$  and  $R_{7b}$  is methyl, ethyl, or straight, branched or cyclic propyl, and  $X_5$  is  $-COX_{10}$  wherein  $X_{10}$  is phenyl, or  $X_5$  is  $-COOX_{10}$  wherein  $X_{10}$  is t-butyl.

122. The taxane of claim 92 wherein  $X_3$  is substituted or unsubstituted thienyl,  $R_7$  is  $R_{7a}R_{7b}NCOO-$ , one of  $R_{7a}$  and  $R_{7b}$  is hydrogen, the other of  $R_{7a}$  and  $R_{7b}$  is substituted or unsubstituted phenyl or heterocyclo, and  $X_5$  is  $-COX_{10}$  wherein  $X_{10}$  is phenyl, or  $X_5$  is  $-COOX_{10}$  wherein  $X_{10}$  is t-butyl.

123. The taxane of claim 92 wherein  $X_3$  is substituted or unsubstituted phenyl,  $R_7$  is  $R_{7a}R_{7b}NCOO-$ , one of  $R_{7a}$  and  $R_{7b}$  is hydrogen, the other of  $R_{7a}$  and  $R_{7b}$  is methyl, ethyl, or straight, branched or cyclic propyl, and  $X_5$  is  $-COX_{10}$  wherein  $X_{10}$  is phenyl, or  $X_5$  is  $-COOX_{10}$  wherein  $X_{10}$  is t-butyl.

124. The taxane of claim 92 wherein  $X_3$  is substituted or unsubstituted phenyl,  $R_7$  is  $R_{7a}R_{7b}NCOO-$ , one of  $R_{7a}$  and  $R_{7b}$  is hydrogen, the other of  $R_{7a}$  and  $R_{7b}$  is substituted or unsubstituted phenyl or heterocyclo, and  $X_5$  is  $-COX_{10}$  wherein  $X_{10}$  is phenyl, or  $X_5$  is  $-COOX_{10}$  wherein  $X_{10}$  is t-butyl.

125. The taxane of claim 92 wherein  $X_3$  is isobutenyl, one of  $R_{7a}$  and  $R_{7b}$  is hydrogen,  $R_7$  is  $R_{7a}R_{7b}NCOO-$ , the other of  $R_{7a}$  and  $R_{7b}$  is methyl, ethyl, or straight, branched or cyclic propyl, and  $X_5$  is  $-COX_{10}$  wherein  $X_{10}$  is phenyl, or  $X_5$  is  $-COOX_{10}$  wherein  $X_{10}$  is t-butyl.

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126. The taxane of claim 92 wherein  $X_3$  is alkyl,  $R_7$  is  $R_{7a}R_{7b}NCOO-$ , one of  $R_{7a}$  and  $R_{7b}$  is hydrogen, the other of  $R_{7a}$  and  $R_{7b}$  is methyl, ethyl, or straight, branched or cyclic propyl, and  $X_5$  is  $-COX_{10}$  wherein  $X_{10}$  is phenyl, or  $X_5$  is  $-COOX_{10}$  wherein  $X_{10}$  is t-butyl.

127. The taxane of claim 92 wherein  $X_3$  is 2-furyl or 2-thienyl,  $R_7$  is  $R_{7a}R_{7b}NCOO-$ , one of  $R_{7a}$  and  $R_{7b}$  is hydrogen, the other of  $R_{7a}$  and  $R_{7b}$  is methyl, ethyl, or straight, branched or cyclic propyl,  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is t-butyl.

128. The taxane of claim 92 wherein  $X_3$  is 2-furyl or 2-thienyl,  $R_7$  is  $R_{7a}R_{7b}NCOO-$ , one of  $R_{7a}$  and  $R_{7b}$  is hydrogen, the other of  $R_{7a}$  and  $R_{7b}$  is substituted or unsubstituted phenyl or heterocyclo,  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is t-butyl.

129. The taxane of claim 92 wherein  $X_3$  is cycloalkyl,  $R_7$  is  $R_{7a}R_{7b}NCOO-$ , one of  $R_{7a}$  and  $R_{7b}$  is hydrogen, the other of  $R_{7a}$  and  $R_{7b}$  is substituted or unsubstituted phenyl or heterocyclo,  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is t-butyl.

130. A pharmaceutical composition comprising the taxane of claim 1 and at least one pharmaceutically acceptable carrier.

131. The pharmaceutical composition of claim 130 wherein  $X_3$  is 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.

132. The pharmaceutical composition of claim 131 wherein  $X_5$  is  $-COX_{10}$  and  $X_{10}$  is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl, or  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is substituted or unsubstituted  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.

133. The pharmaceutical composition of claim 131 wherein  $X_5$  is  $-COX_{10}$  and  $X_{10}$  is phenyl, or  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is t-butyl.

134. The pharmaceutical composition of claim 130 wherein  $R_7$  is  $R_{7a}R_{7b}NCOO-$ , one of  $R_{7a}$  and  $R_{7b}$  is hydrogen, the other of  $R_{7a}$  and  $R_{7b}$  is substituted or unsubstituted  $C_1 - C_8$  alkyl, phenyl or heterocyclo.

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135. The pharmaceutical composition of claim 134 wherein  $X_3$  is 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.

136. The pharmaceutical composition of claim 135 wherein  $X_5$  is  $-COX_{10}$  and  $X_{10}$  is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl, or  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is substituted or unsubstituted  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.

137. The pharmaceutical composition of claim 135 wherein  $X_5$  is  $-COX_{10}$  and  $X_{10}$  is phenyl, or  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is t-butyl.

138. The pharmaceutical composition of claim 131 wherein  $X_3$  is furyl or thienyl,  $R_7$  is  $R_{7a}R_{7b}NCOO-$ , one of  $R_{7a}$  and  $R_{7b}$  is hydrogen, the other of  $R_{7a}$  and  $R_{7b}$  is  $C_1 - C_8$  alkyl, phenyl or heterocyclo, and  $X_5$  is  $-COX_{10}$  and  $X_{10}$  is phenyl, or  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is t-butyl.

139. The pharmaceutical composition of claim 131 wherein  $X_3$  is cycloalkyl,  $R_7$  is  $R_{7a}R_{7b}NCOO-$ , one of  $R_{7a}$  and  $R_{7b}$  is hydrogen, the other of  $R_{7a}$  and  $R_{7b}$  is  $C_1 - C_8$  alkyl, phenyl or heterocyclo, and  $X_5$  is  $-COX_{10}$  wherein  $X_{10}$  is phenyl, or  $X_5$  is  $-COOX_{10}$  wherein  $X_{10}$  is t-butyl.

140. The pharmaceutical composition of claim 131 wherein  $X_3$  is substituted or unsubstituted phenyl,  $R_7$  is  $R_{7a}R_{7b}NCOO-$ , one of  $R_{7a}$  and  $R_{7b}$  is hydrogen, the other of  $R_{7a}$  and  $R_{7b}$  is  $C_1 - C_8$  alkyl, phenyl or heterocyclo, and  $X_5$  is  $-COX_{10}$  wherein  $X_{10}$  is phenyl, or  $X_5$  is  $-COOX_{10}$  wherein  $X_{10}$  is t-butyl.

141. The pharmaceutical composition of claim 131 wherein  $X_3$  is isobutenyl,  $R_7$  is  $R_{7a}R_{7b}NCOO-$ , one of  $R_{7a}$  and  $R_{7b}$  is hydrogen, the other of  $R_{7a}$  and  $R_{7b}$  is  $C_1 - C_8$  alkyl, phenyl or heterocyclo, and  $X_5$  is  $-COX_{10}$  wherein  $X_{10}$  is phenyl, or  $X_5$  is  $-COOX_{10}$ .

142. The pharmaceutical composition of claim 131 wherein  $X_3$  is alkyl,  $R_7$  is  $R_{7a}R_{7b}NCOO-$ , one of  $R_{7a}$  and  $R_{7b}$  is hydrogen, the other of  $R_{7a}$  and  $R_{7b}$  is  $C_1 - C_8$

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alkyl, phenyl or heterocyclo, and  $X_5$  is  $-COX_{10}$  wherein  $X_{10}$  is phenyl, or  $X_5$  is  $-COOX_{10}$  wherein  $X_{10}$  is t-butyl.

143. A pharmaceutical composition comprising the taxane of claim 92 and at least one pharmaceutically acceptable carrier.

144. A pharmaceutical composition comprising the taxane of claim 96 and at least one pharmaceutically acceptable carrier.

145. A composition for oral administration comprising the taxane of claim 1 and at least one pharmaceutically acceptable carrier.

146. The composition of claim 145 wherein  $X_3$  is 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.

147. The composition of claim 146 wherein  $X_5$  is  $-COX_{10}$  and  $X_{10}$  is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl, or  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is substituted or unsubstituted  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.

148. The composition of claim 146 wherein  $X_5$  is  $-COX_{10}$  and  $X_{10}$  is phenyl, or  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is t-butyl.

149. The composition of claim 145 wherein  $R_7$  is  $R_{7a}R_{7b}NCOO-$ , one of  $R_{7a}$  and  $R_{7b}$  is hydrogen, the other of  $R_{7a}$  and  $R_{7b}$  is substituted or unsubstituted  $C_1 - C_8$  alkyl, phenyl or heterocyclo.

150. The composition of claim 149 wherein  $X_3$  is 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.

151. The composition of claim 150 wherein  $X_5$  is  $-COX_{10}$  and  $X_{10}$  is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl, or  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is substituted or unsubstituted  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.

152. The composition of claim 150 wherein  $X_5$  is  $-COX_{10}$  and  $X_{10}$  is phenyl, or  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is t-butyl.

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153. A composition for oral administration comprising the taxane of claim 92 and at least one pharmaceutically acceptable carrier.

154. A composition for oral administration comprising the taxane of claim 96 and at least one pharmaceutically acceptable carrier.

155. A method of inhibiting tumor growth in a mammal, said method comprising orally administering a therapeutically effective amount of a pharmaceutical composition comprising the taxane of claim 1 and at least one pharmaceutically acceptable carrier.

156. The method of claim 155 wherein  $X_3$  is 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.

157. The method of claim 156 wherein  $X_5$  is  $-COX_{10}$  and  $X_{10}$  is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl, or  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is substituted or unsubstituted  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.

158. The method of claim 156 wherein  $X_5$  is  $-COX_{10}$  and  $X_{10}$  is phenyl, or  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is t-butyl.

159. The method of claim 155 wherein  $R_7$  is  $R_{7a}R_{7b}NCOO-$ , one of  $R_{7a}$  and  $R_{7b}$  is hydrogen, the other of  $R_{7a}$  and  $R_{7b}$  is substituted or unsubstituted  $C_1 - C_8$  alkyl, phenyl or heterocyclo.

160. The method of claim 159 wherein  $X_3$  is 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.

161. The method of claim 160 wherein  $X_5$  is  $-COX_{10}$  and  $X_{10}$  is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl, or  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is substituted or unsubstituted  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.

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162. The method of claim 160 wherein  $X_5$  is  $-\text{COX}_{10}$  and  $X_{10}$  is phenyl, or  $X_5$  is  $-\text{COOX}_{10}$  and  $X_{10}$  is t-butyl.

163. A method of inhibiting tumor growth in a mammal, said method comprising orally administering a therapeutically effective amount of a pharmaceutical composition comprising the taxane of claim 92 and at least one pharmaceutically acceptable carrier.

164. A method of inhibiting tumor growth in a mammal, said method comprising orally administering a therapeutically effective amount of a pharmaceutical composition comprising the taxane of claim 96 and at least one pharmaceutically acceptable carrier.

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